

KRAMARENKO, G. V.
 Phase I Treasure Island Bibliographical Report. (TO 227 - 1)
 Book Call No.: T111.49
 Authors: NIKOLAYEV, L. A., BRUNYANTSEV, V. V., KASHCHENKO, L. T.,
 GROMOVSKIY, T. G., KRAMARENKO, G. V., KRICHEVSKIY, L. A.,
 and LEVIN, D. K.
 Full Title: AUTOMOBILE TRANSPORTATION HANDBOOK (2nd Revised Edition)
 Transliterated Title: Avtotransportnyy spravochnik
 Publishing Date
 Originating Agency: None
 Publishing House: State Scientific and Technical Publishing House of
 Literature on Machine Building
 Date: 1963 No.op.: 300 No. copies: 92,000
 Editorial Staff
 Editor: Afanas'yev, L. L., Cand.
 Techn. Sci.
 Ed.-in-Chief: Broksh, V. V., Eng.
 Tech. Ed.: None
 Appraisers(1st edition):
 Yefremov, V. V. and
 Arnskov, P. P., Eng.

Text Data
 Coverage: The handbook contains technical information on inspection, servicing
 and repair of Soviet passenger cars, buses, trucks, and trailers.
 Questions of garage planning, management, and accounting are discussed
 and illustrated with numerical examples. Characteristics and speci-
 fications are given for materials and parts used in servicing and

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Card 2/2

ATD 887 - 1

Call No.: T1151.12

Full Title: AUTOMOBILE TRANSPORTATION HANDBOOK (and Revised edition)

Text Date:

Cover: (cont.):

repair, such as fuels (gasolines, diesel fuels, and solid fuels for gas generators), lubricants, antifreezes, and brake liquids. Materials for auto parts and tools, their thermal treatment, allowable clearances, and tolerances in moving parts are discussed. The book also outlines basic characteristics of automobiles, buses and trucks, load-hauling equipment, and describes methods of winter storage, steam-heating arrangements for starting, etc.

The book may be of interest from the viewpoint of information on the general and technical management of Soviet automobile transportation.

Purpose: This handbook is prepared for engineering and technical personnel in automobile transportation.

Facilities: The handbook was prepared in accordance with new instructions and All-Union State Standards (GOST) and results of the work of the Central Scientific Research Institute of Automobile Transportation (TsNIIAT) and other research and design organizations. Consideration was also given to comment and suggestions expressed by the Planning Section of the All-Union Scientific and Engineering and Technical Society of Machine Building (VITOMASH).

No. Russian and Soviet References: 2(127-62)

Available: Library of Congress

KRAMARENKO, G.V.

Cutting off non-ferrous casting gates. Lit.proizv. no.7:30 0 '54.
(Founding) (MLRA 7:12)

BRONSHTEYN, L.A.; BRUSYANTSEV, N.V.; GREGORIEVAYA, L.T.; GROZOVSKIY, T.S.;
KRAMARENKO, G.V.; KRICHENSKY, I.I.; KOSYEV, L.L.
kandidat tekhnicheskikh nauk, doktor; BASHIN, I. I. inzhener, re-
daktor; MODEL', B.I., tekhnicheskii redaktor.

[Motor transport manual] Avtotransportnyi spravochnik. Izd. 3-e,
ispr. i dop. Pod obshchei red. L.L. Afanas'eva. Moskva, Gos. nauchno-
tekhn. izd-vo mashinostroit. lit-ry, 1956. 739 p. (MLRA 9:5)
(Automobiles--Handbooks, manuals, etc.) (Transportation, Automotive)

KRAMARENKO, G.V., dotsent.

Problem of the best possible technical maintenance of atuo-
mobiles. Trudy MADI no.19:123-127 '56. (MLRA 10:1)
(Automobiles--Maintenance)

KRAMARENKO, Georgiy Vasil'yevich, dots. kand. tekhn. nauk; LEYDERMAN, S.R.,
red.; MAL'KOVA, N.V., tekhn. red.

[Automobile maintenance] Tekhnicheskoe obsluzhivanie avtomobilei.
Moskva, Nauchno-tekhn. izd-vo avtoransp. lit-ry, 1957. 370 p.
(MIRA 11:3)

(Automobiles--Maintenance and repair)

LISIN, Aleksandr Sergeyevich; FEYGIN, Leonid Aleksandrovich; KRAMARENKO, G.V.,
kand.tekhn.nauk, retsenzent; KORNEICHEV, N.V., inzh., retsenzent;
YERETSKIY, M.I., inzh., red.; ZUYEVA, N.K., tekhn.red.

[Practical laboratory work in automobile maintenance] Laboratornyi
praktikum po tekhnicheskomu obsluzhivaniyu avtomobilei. Moskva,
Nauchno-tekhn.izd-vo avtotransp..lit-ry, 1958. 119 p.

(MIRA 12:3)

(Automobiles--Maintenance and repair)

ALEKSANDROV, L.A.; AKSENOVA, Z.I.; ARTEM'YEV, S.P.; AFANAS'YEV, L.L.;
BONSHTeyN, L.A.; BURKOV, M.S.; BUYANOV, V.A.; VELIKANOV, D.P.;
VERKHOVSKIY, I.A.; GOBERMAN, I.M.; DAVIDOVICH, L.N.; DEQTEREVA,
G.N.; ZEMSKOV, P.F.; KALAHUKHOV, F.V.; KOLESNIK, P.A.; KOZHIN,
A.P.; KRAMARENKO, G.V.; KRUZE, I.L.; KURSHEV, A.N.; OSTROVSKIY,
N.B.; PASHINA, S.N.; SEMIKIN, N.V.; TARANOV, A.T.; TIKHOMIROV,
A.K.; ULITSKIY, P.S.; USHAKOV, B.P.; FILIPPOV, V.K.; CHERNYAVSKIY,
L.M.; CHUDINOV, A.A.; SHUPLYAKOV, S.I.; TIKHOMIROV, N.N.

Petr Valerianovich Kaniovskii; obituary. Avt.transp. 37
no.4:57 Ap '59. (MIRA 13:6)
(Kaniovskii, Petr Valerianovich, 1881-1959)

BRONSHTEYN, L.A., dotsent; APANAS'YEV, L.L., dotsent, BASH, M.S., dotsent;
VLASKO, Yu.M., inzh.; ZEMSKOV, P.F., inzh.; KRAMARENKO, G.V.,
dotsent; LEYDERMAN, S.R., dotsent; LIV'YANT, Ya.A., ispoln.obyazan-
nosti dotsenta; LYUBINSKIY, N.M., inzh.; NAYDENOV, B.F., inzh.;
FINKEL'SHTEYN, A.L., inzh.; KHROMOV, A.A., inzh.; CHUDINOV, A.A.,
inzh.; GOBERMAN, I.M., red.; GALAKTIONOVA, Ye.N., tekhn.red.;
DONSKAYA, G.D., tekhn.red.

[Centralized automotive freight haulage] TSentralizovannye pere-
vozki gruzov avtomobil'nyy transportom. Pod obshchei red. I.M.
Gobermana. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transpor-
ta i shosseinykh dorog RSFSR, 1960. 206 p. (MIRA 13:9)

1. Moscow. Avtomobil'no-dorozhnyy institut.
(Transportation, Automotive)

BRONSHTEYN, L.A., kand.tekhn.nauk; BRUSYANTSEV, N.V., kand.tekhn.nauk;
GRECHINSKAYA, L.T., inzh.; GROZOVSKIY, T.S., kand.tekhn.nauk;
KRAMARENKO, G.V., kand.tekhn.nauk; KRICHEVSKIY, Z.A., inzh.;
LEVIN, D.M., kand.tekhn.nauk [deceased]. Prinimali uchastiye:
BEGTEREV, G.N., kand.tekhn.nauk; SHEYNIN, A.M., kand.tekhn.nauk;
SHLIPPE, I.S., kand.tekhn.nauk; NAYDENOV, B.F., inzh. AFANAS'YEV,
L.L., kand.tekhn.nauk, red.; VASIL'YEVA, I.A., red.izd-va; UVAROVA,
A.F., tekhn.red.

[Handbook for automotive transportation] Avtotransportnyi spravochnik. Izd.4., ispr. 1 dop. Pod obshchei red. L.L.Afanas'eva. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 819 p. (MIRA 13:12)
(Transportation, Automotive--Handbooks, manuals, etc.)

GOBERMAN, Vitaliy Aleksandrovich; GOBERMAN, Lev Aleksandrovich;
KRAMARENKO, G.V., red.; TIKHOMIROV, N.N., retsenzent;
~~SEDOVA, A.P., red. izd-va; MAL'KOVA, N.V., tekhn. red.~~

[Mechanization of loading and unloading operations in transporting agricultural loads] Mekhanizatsiia pogruzochno-razgruzochnykh rabot pri perevozkakh sel'skokhoziaistvennykh грузов. Pod red. G.V.Kramarenko. Moskva, Nauchno-tekhn. izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1961. 286 p.
(MIRA 15:2)

1. Zaveduyushchiy kafedroy Moskovskogo avtomobil'no-dorozhnogo instituta (Kramarenko). 2. Zaveduyushchiy kafedroy Moskovskogo inzhenerno-ekonomicheskogo instituta (for Tikhomirov).
(Loading and unloading) (Farm produce—Transportation)

KRAMARENKO, G.V.

Absolute survey with a proton magnetometer. Geomag. i aer.
2 no.5:995-997 S-O '62. (MIRA 15:10)

1. Otdel razvedochnoy geofiziki i seysmologii AN TurkmSSR.
(Turkmenistan--Magnetometer)

ANDREYEV, B.V.; ARTEM'YEV, S.P.; ARKHANGEL'SKIY, V.M.; AFANAS'YEV, L.L.;
BABKOV, V.F.; BRONSHTEYN, L.A.; BURKOV, M.S.; BURYANOV, V.A.;
VARSHAVSKIY, I.L.; VELIKANOV, D.P.; VOINOV, A.N.; VYRUBOV, D.N.;
DORMIDONTOV, A.V.; D'YACHKOV, A.K.; YEFREMOV, V.V.; ZHABIN, V.M.;
ZELENKOV, G.I.; KALABUKHOV, F.V.; KALISH, G.G.; KRAMARENKO, G.V.;
KRASIKOV, S.M.; LAKHTIN, Yu.M.; MIKULIN, A.A.; ORLIN, A.S.; OSTROVSKIY,
N.B.; OSTROVTSOV, A.N.; RUBETS, D.A.; STEPANOV, Yu.A.; STECHKIN, B.S.;
KHACHATUROV, A.A.; KHOVAKH, M.S.; CHAROMSKIY, A.D.; SHARAPOV, K.A.

Nikolai Romanovich Briling; obituary. Avt.transp. 39 no.4:57
Ap '61.

(MIRA 14:5)

(Briling, Nikolai Romanovich, 1876-1961)

KRAMARENKO, Georgi Vasil'yevich, prof.; ILARIONOV, V.A., red.;
STRYZHKOVA N.I., red. izd-va; BODANOVA, A.P., tekhn. red.

[Maintenance of motor vehicles] Tekhnicheskaya ekspluatatsiya avtomobilei. Moskva, Avtotransizdat, 1962. 499 p.
(MIRA 16:7)

(Motor vehicles--Maintenance and repair)

TSUKERBERG, Solomon Maksimovich; KRAMARENKO, G.V., prof., red.;
TUPITSYN, L.A., red.; YASHUKOVA, N.V., tekhn. red.

[New motor-vehicle tires] Novye avtomobil'nye shiny. Moskva,
Rosvuzizdat, 1963. 64 p. (MIRA 16:12)
(Motor vehicles—Tires)

KUZNETSOV, Ye.S. kand. tekhn. nauk; KRAMARENKO, G.V., prof.,
red.; VLA'OV, A.I., red.

[Maintenance of motor vehicles] Tekhnicheskaiia ekspluatatsiia
avtomobilei. Moskva, Rosvuzizdat. No.1. 1963. 60 p.
(MIRA 17:4)

KOLESNIK, Pavel 'damovich, dots.; KRAMARENKO, G.V., prof., doktor
tekhn. nauk, retsenzent; ANAN'YEV, I.G., kand. tekhn. nauk,
retsenzent; ARKHANGEL'SKIY, V.M., nauchn. red.

[Servicing materials for motor vehicles] Avtomobil'nye
ekspluatatsionnye materialy. Moskva, Transport, 1965. 268 p.
(MIRA 18:4)

1. Rukovoditel' kafedry ekspluatatsii avtomobil'nogo transporta
Moskovskogo avtomobil'no-dorozhnogo instituta im. V.M.Molotova
(for Kramarenko).

MIROSHNIKOV, Leonid Vladimirovich, kand. tekhn. nauk; ~~KRAMARENKO~~,
G.V., prof., doktor tekhn. nauk, red.; YAKOVLEV, G.N., red.

[Technical operation of automobiles; practical laboratory
work] Tekhnicheskaya ekspluatatsiya avtomobilei; labora-
tornyi praktikum. Moskva, Transport, 1965. 192 p.
(MIRA 18:7)

KRAMARENKO, I.; YAKOVLEVA, I.

Establishing work norms for adolescents. Prof.-tekhn. obr. 20 no.10:
18 0 1983. (MIRA 16:12)

1. Kiyevskiy nauchno-issledovatel'skiy institut gigieny truda
i professional'nykh zabolevaniy.

KRAMARENKO, I.

Extending the longevity and the operating dependability of the
8DR 43/61 engines. Mor. flot. 24 no.11:28-30 N '64.

(MIRA 18:8)

1. Starshiy mekhanik morozil'nogo trawlera Sevastopol'skogo
upravleniya okeanicheskogo rybolovstva.

KHAMARENKO, I.A., inzhener (Dnepropetrovsk); LYASHENKO, Ya.T.(Dnepropetrovsk).

Pack loading of lightweight freight. Zhel.dor.transp.37 no.4:79-80
Ap '56. (Railroads--Freight cars) (MLRA 9:7)

YRAMARENKO, I.A., inzh. (Dnepropetrovsk)

Errors in propaganda about safety techniques. Zhel.dor.transp.
41 no.3:95-96 Mr '59. (MIRA 12:6)
(Railroads--Safety measures)

KRAMARENKO, I.A., inzh. (g.Dnepropetrovsk)

Using the method of consolidated operations for loading sugar
beets. Zhel.dor.transp. 43 no.10:76-77 9 '61. (MIRA 14:9)
(Loading and unloading) (Sugar beets--Transportation)

KRAMARENKO, I. B., Cand Med Sci -- (diss) "Dynamics of the functional condition of the organism of the adolescent in the process of industrial training." Kiev, 1958. 10 pp (Kiev Order of Labor Red Banner Med Inst im Academician A. A. Bogomolets), 200 copies (KL, 18-58, 103)

-111-

PREVARSKAYA, A.D., kand. med. nauk; KRAMARENKO, I.B., kand. med. nauk

Daily schedule for adolescents combining work with study in
the evening school. Gig. sanit. 28 no.2:32-35 '63

(MIRA 17:2)

1. Iz Kiyevskogo nauchno-issledovatel'skogo instituta gigiyeny
truda i professional'nykh zabolevaniy.

KRAMARENKO, I.B., YAKOVLEVA, I.N.

Changes in the physical development of employed adolescents, and
students at industrial training schools and trade schools in Kiev.
Vrach.delo no.8:839-841 Ag '58 (MIRA 11:8)

1. Kiyevskiy institut gigiyeny truda i professional'nykh zabolevaniy.
(KIEV--CHILDREN--GROWTH)

^A
KRAMORENKO, I. T., Cand Med Sci -- (diss) "Close-focus X-Ray Therapy and the Treatment of Skin Cancer With Quaine [?]" Moscow, 1957, 11 pages. (Academy of Medical Sciences USSR); 200 copies; price not given -- reproduced by mimeograph. (KL, 17-60, 170)

KRAMARENKO, L., inzh.

Modern floors. Zhil. stroi. no.11:30-31 '64 (MIRA 18:2)

USPENSKIY, Boris Petrovich; KRAMARENKO, Leonid Ivanovich,
retsensent; TELEGIN, Pavel Andreyevich, retsensent;
KOVALEVA Z.G., red.

[Shaped, welded steel parts; ordinates for pattern layout]
Svarnye stal'nye fasonnye chasti; ordinaty dlia raskroia
shablonov. Khar'kov, Izd-vo Khar'kovskogo univ., 1964.
102 p. (MIRA 17:9)

1. KRAMARENKO, L. P., Prof.: KOBLYANSKIY, A. D., Eng.

2. USSR (600)

4. Hydraulic Rams

7. UIZh hydraulic ram. Sov.zootekh. 7 no. 11 1952

9. Monthly List of Russian / ccessions, Library of Congress, February 1953, Unclassified.

KRAMARENKO, L. YE.

PL 66/4971

USSR/Agriculture - Cotton Plants, Diseases Immunity Feb 49

Immunity

"Bactericidal Nature of Protoplasm as One of the Factors Governing the Type Immunity of the Cotton Plant to Humus," L. Ye. Kramarenko, Cand Biol Sci, All-Union Sci Res Inst Agr Microbiol, 5 pp

"Dok v-s Ak Selkhoz Nauk" No 2

Tested and tabulated the coefficient of bactericidal nature of protoplasm of four strains of cotton plants, OD-1, 4, 943, 1, 306, and 13,751, and determined its effect on the immunity of the plants to humus. Observed a direct correlation

66/4971

USSR/Agriculture - Cotton Plants, Diseases (Contd) Feb 49

between the coefficient and the immunity. Observed that the coefficient changed along with the growth of plant, being less during the cotyledon phase and greater in budding phase.

66/4971

USSR/Microbiology - General Microbiology.

F-1

Abs Jour : Ref Zhur - Biol., No 12, 1958, 52727

Author : Kramarenko, L.Ye.

Inst : All-Union Scientific-Research Geological Institute.

Title : The Composition and Distribution of Microorganisms in Underground Waters and Their Significance in Prospecting.

Orig Pub : Materialy Vses. n.-i. geol. in-ta, 1956, No 18, 93-115.

Abstract : In underground waters of natural-gas bearing districts of the Second Baku, Fergan depression and natural-gas bearing regions of the Leningrad district and Estonian SSR, sulfate reducing and denitrifying bacteria are found, bacteria decomposing naphthenic acids, carbohydrates, protein compounds, and which oxidize paraffin. The distribution of bacteria depends on the salt and gas composition of underground waters, on conditions of their occurrence, and

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Abs Jour : Ref Zhur - Biol., No 12, 1958, 52727

relation to the oil-bearing strata. The underground waters of open structures contain the richest aerobic and anaerobic microflora both as to numbers and composition. In underground waters of semi-closed structures, chiefly sulfate reducing bacteria develop; in waters of closed structures there are few bacteria. However, quantitative and qualitative indices of bacterial distribution are insufficient for prospecting purposes. It is also necessary to take into consideration the specificity of physiological properties produced under natural conditions. It is established that the prospecting bacteria are those sulfate reducing bacteria which decompose the higher hydrocarbons ($C_{H_{20}}$). -- L.D. Shaforostova

Card 2/2

BELIAKOVA, Ye.Ye.; REZNIKOV, A.A.; KRAMARENKO, L.Ye.; NECHAYEVA,
A.A.; KRONIDOVA, T.F.; ZAYTSEV, I.K., red.; ENITIN, M.L.,
red. izd-va; BYKOVA, V.V., tekhn. red.

[Geochemical method of searching for ore deposits in arid
and semiarid regions]Gidrokhimicheskii metod poiskov rud-
nykh mestorozhdenii v aridnykh i poluaridnykh oblastiakh.
[By] E.E.Beliakova i dr. Moskva, Gosgeoltekhizdat, 1962.
266 p.

(MIRA 15:9)

(Geochemical prospecting)

KRAMARENKO, L.Ye.

Effect of amino acids on unconditioned interoceptive reflexes. Report No.1: Relationship between central and peripheral segments in interoceptive reflex mechanisms. Biul. eksp. biol. med. 47 no.1:9-14 Ja '59.

(MIRA 12:3)

1. Iz laboratorii obshchey fiziologii Instituta normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy chlen AMN SSSR V. N. Chernigovskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nyy chlenom AMN SSSR V. N. Chernigovskim.

(REFLEX,

unconditioned, eff. of amino acids, center peripheries relationships in interoceptive reflex mechanisms (Rus))

(AMINO ACIDS, effects,

on unconditioned reflexes, center peripheries relationships in interoceptive reflex mechanisms (Rus))

KRAMARENKO, L.Ye.

Bacterial biocenoses in underground waters of some mineral
deposits and their geological significance. Mikrobiologiya
31 no.4:694-701 J1-Ag '62. (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut,
Leningrad.

SMOL'NIKOV, V. P.; STEPANYAN, Ye. P.; KUPRIYANOV, S. S.; KRAMARENKO, L. .

Inversion of the symptomatology in curarization. Eksper. khir. i
anest. no.2:62-66 '62. (MIRA 15:6)

1. Iz laboratorii anesteziologii (zav. - kandidat meditsinskikh
nauk V. P. Smol'nikov) i laboratorii biokhimii (zav. - doktor
biologicheskikh nauk Ye. P. Stepanyan) Instituta grudnoy khirurgii
(dir. - prof. S. A. Kolesnikov, nauchnyy rukovoditel' - akad.
A. N. Bakulev) AN SSSR.

(MUSCLE RELAXANTS)

BASKOV, Ye.A.; DUTOVA, Ye.N.; KRAMARENKO, L.Ye.

Microflora of underground waters in the southeastern part of the
Siberian Platform. Inform.sbor.VSEGEI no.56:101-108 '62. (MIRA 17:1)

KRAMARENKO, M.P., master

Improving the Mostofin-type salt gauge. Elek.sta. 31 no.2:
86-87 F '60. (MIRA 13:5)
(Sellingometer)

KRAMARENKO, M. P., polkovnik meditsinskoy sluzhby; GIKALOV, G. S.,
polkovnik meditsinskoy sluzhby; LESHCHINSKAYA, R. G.

Treatment of patients with rheumatic fever with hormones in
combination with other substances. Voen.-med. zhur. no.12:
26-28 D '61. (MIRA 15:7)

(RHEUMATIC FEVER) (ADRENOCORTICAL HORMONES)

KRAMARENKO, M.P.; KOZLOVA, T.D.

Some complications in influenza. Sov. med. 25 no.3:11-13 Mr '61.
(MIRA 14:3)
(INFLUENZA)

KRAMARENKO, M.P.

Treatment of bronchial asthma with euphyllin aerosols; preliminary report. Klon.med. 39 no.1:110-112 Ja '61. (MIRA 14:1)
(ASTHMA) (AMINOPHYLLINE)

KRAMARENKO, M. P.

М. П. Крамаренко защитил 2 VI 1960 г. в Совете Военно-медицинской ордена Ленина академии имени С. М. Кирова (Ленинград) диссертацию на тему «Клиника лямблиоза у взрослых людей».

Лямблиоз — самостоятельное заболевание, имеет своего возбудителя, клинические проявления и специфическую химиотерапию. Иногда лямблиоз наблюдается и в качестве вторичного заболевания, в частности, осложняющего бактериальную дизентерию.

Candidate of Medical Sciences

Dissertations approved by the Higher Attestation Commission in January and February of 1961. Terap. arkh. no. 6:117-121 '61

KRAMARENKO, M.P., starshiy m ster

Improvement of OPK-8 blowers. Energetik 10 no.9:12 S '62.
(MIRA 17:1)

KHATARENKO, N.K.

Organization of rural water supply in Stavropol Territory.
Gidr. i mel. 17 no. 332-35 Je '65. (CITE 18:7)

1. Yuzhnyy nauchno-ssledovatel'skiy institut gidrotekhniki
i melioratsii.

ACCESSION NR: AP4032879

S/0031/64/016/004/0712/0713

AUTHOR: Avdeyenko, A.A.; Akopov, V.M.; Kramarenko, N.L.; Naboykin, Yu.V.; Shklyarevskiy, I.N.

TITLE: Concerning measurement of high reflection coefficients

SOURCE: Optika i spektroskopiya, v.16, no.4, 1964, 712-713

TOPIC TAGS: reflection coefficient, reflection coefficient measurement, mirror, silver mirror

ABSTRACT: In connection with designing interference instruments (for example, Fabry-Perot etalons) and lasers it is essential to know the reflection coefficient of the mirror components, and the higher the coefficient the more important is accuracy of the measurement result. In the present paper there is proposed a procedure and setup, based on multiple reflection, designed for accurate measurement of the reflection coefficients of mirrors with a high coefficient. The requisite evaluation formulas for two-fold and eight-fold reflection (the latter was employed by the authors) are adduced. A diagram of the setup is shown; it consists essentially of a collimated source, a beam splitting plate, and an appropriate photocell with a

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ACCESSION NR: AP4032879

frosted glass window. The setup and procedure were used to determine the reflection coefficients of three silver mirrors, prepared by simultaneous vacuum evaporation, for wavelengths of 550, 600 and 650 mμ; the estimated measurement accuracy is within $\pm 0.4\%$. Orig. art. has: 3 formulas, 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 26Jul63

SUB CODE: OP

NR REF SOV: 001

ENCL: 00

OTHER: 003

Card 2/2

L 04565-67

ACC NR: AP6032449

GG/WH

SOURCE CODE: UR/0368/66/005/003/0387/0388

AUTHOR: Berzing, E. G.; Kramarenko, N. L.; Naboykin, Yu. V.

ORG: none

TITLE: Multilayer dielectric mirrors for lasers, based on lead oxide and cryolite

SOURCE: Zhurnal prikladnoy spektroskopii, v. 5, no. 3, 1966, 387-388

TOPIC TAGS: laser optics, resonator, ~~laser~~, dielectric mirror, lead oxide, cryolite, ~~dielectric material~~

ABSTRACT: This is a continuation of earlier work (PTE, no. 2, 189, 1965), where it is indicated that dielectric mirrors made with lead oxide as a base offer certain advantages over the customarily used mirrors with ZnS, because the vacuum need not be so high and the lead oxide evaporates at a lower temperature. The authors report that they produced a large number of mirrors based on lead oxide and cryolite for different spectral regions and with different numbers of layers, and found their reflection coefficients to be higher than those with ZnS. Prolonged tests with ruby and neodymium-glass lasers have shown such mirrors to be suitable in lasers with low output energy (on the order of 10 J). The strength of 13-layer mirrors was tested by a procedure similar to that described by A. M. Bouch-Bruevich et al. (ZhPS v. 1, 265, 1964). The tests show that the glass substrate can withstand an energy density up to 300 J/cm², and that the strength is strongly influenced by the cleanliness of the glass prior to deposition of the dielectric layers. It is concluded that once a suitable coating technology is developed, the lead-oxide mirrors will prove to be just as strong as

Card

1/2

UDC: 535.31

L 04565-67

ACC NR: AP6032449

those using ZnS, and the ease of their manufacture and higher reflection coefficient will then make their use in lasers preferable. Orig. art. has: 1 table.

SUB CODE: 20/ SUBM DATE: 05Jul65/ ORIG REF: 003/ OTH REF: 002 / ATD PRESS: 5100

Card 2/2 vmb

AVDEYENKO, A.A.; AKOPOV, V.M.; KRAMARENKO, N.L.; NABOYKIN, Yu.V.;
SHKLYAREVSKIY, I.N.

Measurement of high reflection coefficients. Opt. i spektr.
16 no. 4:712-713 Ap '64. (MIRA 17:5)

L 47071-65 EWP(1)/EWP(2)/EWP(3)/EWP(4)/EWP(5)/EWP(6)/EWP(7)/EWP(8)/EWP(9)/EWP(10)/EWP(11)/EWP(12)/EWP(13)/EWP(14)/EWP(15)/EWP(16)/EWP(17)/EWP(18)/EWP(19)/EWP(20)
 PS-4 LWP(1) JD/WR

ACCESSION NR: AP5011895

UR/0120/65/000/002/0189/190

AUTHOR: Naboykin, Yu. V., Krasarenko, N. L.

TITLE: Interference mirrors with interleaving layers of lead monoxide and cryolite

SOURCE: Priory 1 tekhnika eksperimenta, no. 2, 1965, 189-190

TOPIC TAGS: interference mirror, color selective mirror, dichroic mirror, lead monoxide, cryolite, zinc sulfide, multilayer mirror, mirror coating

ABSTRACT: Preparation of color-selective mirrors with ZnS has been difficult because of the high vaporization temperature of this substance and the necessity of maintaining a high (10^{-7} torr) vacuum during the vaporization process. An attempt is reported to substitute PbO (with cryolite) for ZnS in the preparation of multilayer mirror coatings. These results are reported:

With $\lambda = 600 \text{ m}\mu$:

Reflection %

Transmission %

Absorption %

5 layers: PbO
and cryolite

72.9

16.3

4.5

7 layers: ZnS
and cryolite

79.8

14.7

5.4

Orig. art. has: 2 figures and 1 table

Card 1/2

(03)

L 47071-65

ACCESSION NR: AP5011895

ASSOCIATION: Fiziko-tekhnicheskii instytut niskikh temperatur AN UkrSSR
(Physicotechnical Institute of Low Temperatures, AN UkrSSR)

SUBMITTED: 01Feb64

NO REF SOV: 01

ENCL: 00

SUB CODE: 0P, 88

OTHER: 002

ATD PRESS: 4001

MA
Card 2/2

L 43757-66 EWP(e)/EWT(m) WH
ACC NR: AP6030711 SOURCE CODE: UR/0368/66/005/002/0153/0157

AUTHOR: Naboykin, Yu. V.; Kramarenko, N. L.; Akopov, V. M.

ORG: none

TITLE: Investigation of multilayer dielectric coatings made from lead monoxide and cryolite

SOURCE: Zhurnal prikladnoy spektroskopii, v. 5, no. 2, 1966, 153-157

TOPIC TAGS: light filter, optic filter, ceramic film, metal film, dielectric layer, dielectric coating, laser R and D, optical resonator

ABSTRACT: Laser engineering requires coatings possessing high reflection coefficients, good stability, and resistance to high-density electromagnetic radiation. Traditionally, the dielectric mirrors used in lasers have been made from zinc sulfide and cryolite. The present article deals with an investigation of multilayer dielectric mirrors made from lead monoxide and cryolite with a view to determining whether such mirrors, which are easier to produce than the zinc sulfide type, can be successfully employed in lasers. Specially purified lead monoxide was used in producing layers with minimum absorption. The optical characteristics (reflection, transmission, and absorption—R, T, and A, respectively) of the mirrors were then measured by an instal-

Card 1/3

UDC: 535.345.6:666.246

L 43757-66

ACC NR: AP6030711

0

Table 1. Optical characteristics of interference light filters

Type of filter	$\lambda, \text{\AA}$	$T, \%$	Halfwidth of light filter $\Delta\lambda, \text{\AA}$
Glass-HLHLH-22L-HLHLH-air	5300	75.0	30
Glass-H' LH' LH' LH' -2L- H' LH' LH' LH' -glass	5200	75.0	40

Explanation: 1) H - PbO layer, H' - ZnS layer, L - cryolite layer;
2) the thickness of all layers is equal to $\lambda/4$.

lation consisting of a monochromator, an optical device, and a photo-multiplier with a galvanometer. A nine-layer mirror with maximum reflection at 5780 \AA had the following parameters: $R = 97.0\%$, $T = 1.0\%$, and $A = 2.0\%$. Interference filters prepared from lead monoxide and cryolite were fully as good as optical filters made from zinc sulfide and cryolite. The optical characteristics of an eleven-layer optical filter made from lead monoxide and cryolite and a fifteen-layer filter made from zinc sulfide and cryolite are compared in Table 1. For

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L 43757-66

ACC NR: AP6030711

similar filter parameters the lead monoxide-cryolite filter requires fewer layers than the zinc sulfide-cryolite filter. The layers improve their characteristics with time. Thus, the optical characteristics of an eleven-layer light filter two weeks after being removed from vacuum had improved as follows: transmission increased to the maximum, absorption decreased, and reflection remained constant. Orig. art. has: 3 figures and 1 table. [JA]

SUB CODE: 20/ SUBM DATE: 28Feb65/ ORIG REF: 004/ OTH REF: 002
ATD PRESS: 5075

Card 3/3 blg

L 46018-66 EVT(1)/EEC(k)-2/T/ENT(k) IJP(c) WG/7D

ACC NR: AT6015137

SOURCE CODE: UR/0000/66/000/000/0144/0149

AUTHOR: Kramarenko, N. L.; Meshcheryakov, A. V.; Naboykin, Yu. V.;
Ratner, A. M.; Rom-Krichevskaya, I. A.

ORG: Physico-Technical Institute of Low Temperatures, AN UkrSSR (Fiziko-
tekhnicheskii institut nizkikh temperatur AN UkrSSR)

TITLE: Investigation of losses and loss-associated characteristics of laser
radiation

SOURCE: Respublikanskiy seminar po kvantovoy elektronike. Kvantovaya
elektronika (Quantum electronics): trudy seminar. Kiev, Naukova dumka, 1966,
144-149

TOPIC TAGS: solid state laser, laser R and D, *LASER RADIATION*

ABSTRACT: A method for experimental determination of the radiation loss in a
solid-state-laser resonator is suggested. A 4-level system is considered. The
loss is determined, a plot of output energy vs. mirror transmissivity is
constructed, and estimated and experimental results are compared for a Nd-glass

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L 46018-66

ACC NR: AT6015137

specimen. All quantities that enter a total-radiation loss formula, except for dispersion loss, are directly measureable. Thus, the problem is reduced to determining the dispersion loss. The latter is derived from the experimental data on the effect of the first-mirror transmissivity upon the threshold pumping energy. The knowledge of the resonator radiation loss permits determining the optical transmissivity of mirrors. Orig. art. has: 4 figures and 16 formulas.

SUB CODE: 20 / SUBM DATE: 12Feb66 / ORIG REF: 004 / OTH REF: 002

Card 2/2^{fv}

KRAMARENKO, N.M.

"The Growth and Development of Young Steers of the Kostroma Breed of Large Horned Cattle Under the Conditions of Their Acclimatization in the Breeding Farm "Venets Zarya" in Krasnodarskiy Kray";
dissertation for the degree of Candidate of Agricultural Sciences
(awarded by the Timiryazev Agricultural Academy, 1962)

(Izvestiya Timiryazevskoy Sel'skokhozyaystvennoy Akademii, Moscow, No. 2, 1963, pp 232-236)

KRAMARENKO, Nikolay Mikhaylovich, nauchn. sotr., kand. sel'-
khoz. nauk; SEMENOV, Nikolay Petrovich, nauchn. sotr.,
kand. sel'khoz. nauk; ERNET, Lev Konstantinovich;
FEFERMAN, A.Ye., red.

[Practices in breeding work with black and white cattle]
Opyt plemennoi raboty s krupnym rogatym skotom Chern-
pestroj porody. Moskva, Sossel'khozizdat, 1965. 78 p.
(MIRA 18:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhi-
votnovodstva (for Kramarenko, Semenov).

KRAMAROV, N.N.

Iodkennaya Tunguska Valley - Trilobites

New trilobites from the Silurian of the Iodkennaya Tunguska River basin.
Dokl. AN SSSR 26 No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952, Unclassified.

KRAMARENKO, N.M.

A new Trilobite of Monorakidae from Ordovician strata of the
Siberian Platform. Dokl. Akad. Nauk SSSR 109 no.5:1030-1031 Ag. 1956.
(MLRA 9:10)

1. Paleontologicheskii institut Akademii nauk SSSR. Predstavleno
Akademikom S.I. Mironovym.
(Siberia--Trilobites)

KRAMARENKO, N.N.; SHIMANSKIY, V.M.; FLEROV, K.K.

All-Union Paleontological Conference on Problems in Systematics and
Phylogeny of Fossil Animals. Paleont. zhur. no.2:134-139 '59.

(MIRA 13:1)

(Paleontology--Congresses)

KRAMARENKO, N.N.

A new species of Cyclica (Crustacea) from lower Permian deposits
of the Ural Mountain region. Paleont. zhur. no.2:86-89 '61.
(MIRA 14:6)

1. Paleontologicheskij institut AN SSSR.
(Sim Valley--Copepoda, Fossil)

KRAMARENKO, O.Yu.

Investigating the effect of over-all dimensions on the structural
strength of cast iron. Nauch. trudy Inst. mash. i sel'khoz. mekh.
AN URSR 3:5-24 '51. (MLRA 10:8)
(Cast iron--Metallography)

~~KRAMARENKO, O. V.~~ LIVSHITS, Ye. I.; SUKHOMER, Ye. G.

Investigating stresses in frames of tractor-drawn seeders. Nauch.
trudy Inst. mash. i sel'khoz. mekh. AN URSS 3:95-120 '51.
(Drill (Agricultural implement)) (MLRA 10:8)

SOV/137-57-6-10898

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 214 (USSR)

AUTHORS: Serensen, S.V., Kramarenko, O.Yu.

TITLE: Structural Strength of Cast Iron Relative to its Application in Engine Crankshafts (Konstruktsionnaya prochnost' chuguna v svyazi s yego primeneniye dlya kolenchatykh valov dvigateley)

PERIODICAL: V sb.: Vysokoprochnyye chuguny. Kiyev, Mashgiz, 1954, pp 207-225

ABSTRACT: Curves of static and fatigue strength for 3 types of cast iron, namely, ordinary gray (GI), inoculated (II), and high-strength nodular (HI), are presented. The $\sigma_{\text{compr}}/\sigma_b$ ratio for GI is 3.9-4.2, for HI 3.1-3.2. The ratio of σ_b under torsion to σ_b and the σ_{bi}/σ_b ratio decline as static strength rises. The residual angle of twist rises between 2.5 and 10 times as one proceeds from II to HI with pearlitic and ferritic structure. HI is distinguished by elevated sensitivity to stress concentration over that of GI and II. The resistance of iron to alternate loading rises with its static strength. Values are adduced for σ_w under symmetrical bending, twisting, and tension-and-

Card 1/2

SOV/137-57-6-10898

Structural Strength of Cast Iron Relative to its Application in Engine Crankshafts

compression, as well as the ratio between σ_w and σ_{bp} for the 3 types of iron. The cyclic ductility of HI is less than that of GI by 80 to 85 percent. Refinements are presented in the field of resistance of iron to cyclic overloads and the role of adaptation to stresses lower than σ_w . Data are presented on the fatigue resistance of steel and iron crankshafts. While the latter are low in strength they have greater fatigue resistance to torsion than do steel ones.

Yu.R.

Card 2/2

KRAMARENKO, O.; SIMONIA, O.

"Bending Vibrations Of Tractor Engine Crankshafts as a Factor of Their Strength. Tr. From the Russian." p. 603 (STROITELSTVI. Vol. 4, No. 11, Nov. 1954; Praha, Czech.)

So: Monthly List of East Europe n Accessions, (EEAL), 1C, Vol. 4, No. 4, April 1955, Uncl..

USSR/ Engineering - Engine tests

Card 1/1 : Pub. 128 - 6/38

Authors : Kramarenko, O. YU., and Slutskaya, O. B.

Title : The measurement of stresses in the crankshaft of the D-54 tractor engine arising from the lack of concentricity of its bearings

Periodical : Vest. mash. 9, 28-32, Sep 1954

Abstract : Operational tests were conducted on a four-throw crankshaft with counter weights supported on five sleeve-bearings to determine the influence of eccentricity in the supporting bearings by oscillographic recording of stresses over the cranking angle. Three USSR references (1953-1954). Tables; graphs; diagram; drawing.

Institution :

Submitted :

TRANS D 265211 10 JUN 55

SLUTSKAYA, O.B., kandidat tekhnicheskikh nauk; KRAMARENKO, O.Yu., inzhener.

Bending vibrations of engine crankshafts as a factor of their
strength. Vest.mash.32 no.1:24-28 Ja '54. (MLRA 7:2)

1. Institut mashinovedeniya i sel'skokhozyaystvennoy mekhaniki
Akademii nauk USSR. (Crankshafts and crankshafts)

KRAMARENKO, Oksana Yur'yevna.

GARF, Mikhail Ernestovich; KORSACEVICH, Nikolay Ivanovich; KRAMARENKO, Oksana Yur'yevna; SERESEN, Sergey Vladimirovich; SLUTSKAYA, Olga Borisovna; KHARITOVSKIY, M.B., redaktor; KHYLOVSKAYA, N.S. tekhnicheskiiy redaktor.

[Strength of tractor engine crankshafts; manual for calculations and tests] Prochnost' kolenchatykh valov traktornykh dvigatelei; rukovodstvo po raschetu i ispytaniyu. Kiev, Izd-vo Akademii nauk USSR, 1955. 199 p. (MLRA 9:1)
(Crankshafts) (Tractors)

GRABOVNIK, G. Yu.

GRABOVNIK, G. Yu. --"Structural Strength of Steel Iron (Lecture Notes for Specialists)."

* (Dissertation for Degree in Science and Technical Sciences, Doctoral and Professional Institutions) U.S. of Higher Education USSR, Kiev Order of Lenin Polytechnic Inst., Kiev, 1955

Dr. GRABOVNIK, G. Yu., 15 Jan 5

* For Degree of Candidate in Technical Sciences

КРАТКАЯ ИСТОРИЯ, 0.90

TABLE I BOOK INFORMATION SV/3116

Abdumajid nakl 2558. Institut mashinovedeniya
Voprosy prochnosti materialov i konstruktury (Problems of Strength of
Materials and Structures) Moscow, 1959. 399 p. Karta nly inserted.
3,200 copies printed.

Red. Ed.: D. N. Reshetov, Professor, Doctor of Technical Sciences;
Ed. of Publishing House: G. N. Gerasimov; Tech. Ed.: S. E. Sukhin.

PREFACE: This book is intended for engineers and scientists concerned with
the problems of the strength of materials and construction

CONTENTS: The book contains 36 articles on the strength of materials in
general and of machine construction in particular. This collection
was prepared under the direction of the Institute of Mechanical Engineering
of the AS USSR in honor of the 30th anniversary of the founding of the
founders and directors of the Institute of Mechanical Engineering, one of the
who recently celebrated 30 years of scientific activity. The preface gives
a short biography of his life and professional activities. The collection
is divided into two parts. The first part contains 13 articles on general
problems of strength and the strength of machine construction materials.

The second part contains 15 articles on dynamics and calculation of
structures and machines.

Editors: B. D. and G. I. Shishorina. Effect of Concentrating Stresses
Under the Action of Varying Loads

By the Methods of Powder Metallurgy
Pisarenko, G. I. Problems of the Strength of Brittle Materials Produced

Zil'ber, Z. L., and Ya. B. Fridman. Delayed Decomposition of Materials
and the Effect of the Reserve of Elastic Energy

Zimlary, G. A., and G. Y. Zhuravskiy. Effect of Welding Defects on
the Mechanical Properties of Walls

Shchukin, I. M. Dependence of Ductility and Durability on the
Characteristics of Static Strength

Krasovskiy, O. M. Fatigue Resistance of Cast Iron During Repeated
Overloading

Zakharov, Z. P. Fatigue and Continuous Strength of Alloys for Turbine
Blades under Conditions of Simultaneous Action of Static and Variable
Stresses

Fridman, Ya. B., and Ya. M. Morozov. Mechanical Properties of Metals
Endurance, I. V., and L. M. Rozman. Relieving Residual Stresses
During Axial Loadings of Surface Riveted Bars

Reshetov, D. N., and Z. A. Babat. Construction of a Complete Fatigue
Diagram

GRIGOR'YEV, I.S. [Hryhor'iev, I.S.] [deceased]; YRAMARENKO, O.Yu.;
KULIKOVSKAYA, O.V. [Kulikovskaya, O.V.]

Mechanical properties of cast iron with nodular graphite depend-
ing on its structure. Nauk. pratsi Inst. lyv. vyrob. AN URSS
8:118-128 '59. (MIRA 14:1)

(Cast iron—Metallography)

SERENSEN, S.V., akademik; KRAMARENKO, O.Yu., kand. tekhn. nauk.

Structural strength of nodular cast iron. Vest. mash. 39 no.1:
75-84 Ja '59. (MIRA 12:1)

1. AN USSR (for Serensen).
(Cast iron--Testing)

INDEX

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Manuscript received by the Editor July 10, 1986; revised manuscript received May 17, 1987.

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[illegible]

NOTE. This collection of articles is intended for scientific personnel, engineers, technicians, specialist workers, and planning organizations.

present, and look to us for the solution of the
[Institute]. The present state of and outlook for the development of Engine
Building

[illegible]

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Garr, M.E., and Gail, Wm. (Candidates of Technical Sciences at the Institut Avereyevskiyevskiy in various functions of Research in the USSR).
Investigating the Dynamic Strength of Certain Constructions in the Reactor and Transmutation Industries

Pospelov, Yu. Factors of Technical Selection in the Institute of Problems
 in the USSR. (Electrotechnical Institute of the USSR Academy of Sciences
 in the Field of Design of New Types of Electrical Machinery. 27

Presented by Mrs. [Catherine] [redacted] Secretary for the Society of Friends.
[redacted]

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SERENSEN, S.V.; KRAMARENKO, O.Y.; KULIKOVSKAYA, O.V. [Kulykivs'ka, O.V.]

Mechanical properties and structure of nodular iron. Nauk.pratsi
Inst.lyv.vyrob.AN URSR 9:51-65 '60. (MIRA 15:3)
(Cast iron--Metallography) (Hardness)

KRAMARENKO, O. Yu.

3

PHASE I BOOK EXPLOITATION SOV/5940

Serensen, Sergey Vladimirovich, Academician, Academy of Sciences
UkrSSR, Yevgeniy Georgiyevich Buglov, Mikhail Ernestovich
Garf, Leonid Aleksandrovich Kozlov, Nikolay Ivanovich Kor-
sakevich, Oksana Yur'yevna Kramarenko, and Ol'ga Borisovna
Slutskaya

Prochnost' pri nestatsionarnykh rezhimakh nagruzki (Strength
Under Nonstationary Loading Conditions) Kiyev, Izd-vo
AN UkrSSR, 1961. 294 p. 2000 copies printed.

Sponsoring Agency: Akademiy. nauk Ukrainsskoy SSR. Otdeleniye
tekhnicheskikh nauk.

Ed. of Publishing House: O. M. Pechkovskaya; Tech. Ed.:
V. Ye. Sklyarova.

PURPOSE: This book is intended for engineers of design bureaus,
industrial laboratories, and testing stations, and for

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Strength Under Nonstationary (Cont.)

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members of scientific research institutes.

COVERAGE: The book deals with problems connected with the study of the stress state and the strength of machine and construction parts under nonstationary loads. Discussed are statistical methods of systematizing random alternating stress states, characteristics of experimental devices used for registering such stresses, and the recording of the results of fatigue tests. Attention is given to the analysis of stresses induced by short-duration forces in elastic machine systems. The book is the result of work carried out by the Institut mashinovedeniya (Institute of Machine Science) AN UkrSSR [now the Institut liteynogo proizvodstva] and of the processing of published data. V. A. Grobov, Doctor of Technical Sciences, is mentioned as having assisted in the editing of this book. Each chapter is accompanied by references, mostly Soviet.

Card 2/7

GORSHKOV, Andrey Andreyevich, doktor tekhn. nauk; VOLOSHCHENKO, Mikhail Vasil'yovich, kand. tekhn. nauk; DUBROV, Vasil'y Vladimirovich, kand. tekhn. nauk; KRAMARENKO, Oksana Yur'yevna, kand. tekhn. nauk; MIL'MAN, B.S., kand. tekhn. nauk, retsenzent; KLOCHNEV, N.I., kand. tekhn. nauk, retsenzent; TSYPIN, I.O., kand. tekhn. nauk, retsenzent; RIKBERG, D.B., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Handbook on iron founding of high-strength pig iron] Spravochnik po izgotovleniiu otlivok iz vysokoprochnogo chuguna. By A.A.Gorshkov i dr. Pod obshchei red. A.A.Gorshkova. Moskva, Mashgiz, 1961. 217 p. (MIRA 15:2)

1. Chlen-korrespondent Akademii nauk Ukrainskoy SSR (for Gorshkov).

(Iron founding)

BUGLOV, Ye.G. [Buhlov, YE.G.]; (ARF, M.Ye. [Harf, M.E.]; KRAMARENKO,
O.Yu.

Coordination conference on the fatigue of metals, 1960.

Dop. AN URSR no.8:1096-1101 '61.

(MIRA 14:9)

(Metals---Fatigue)

KRAMARENKO, O.Yu.

Fatigue resistance of cast iron with spheroidal graphite under
the effect of programmed loading. Nauch. trudy Inst. lit.
proizv. AN URSR no.10:100-110 '61. (MIRA 15:6)
(Cast iron--Fatigue) (Strains and stresses)

KRAMARENKO, O.Yu.; KULIKOVSKAYA, O.V.

Effect of stress concentration on the static strength of pearlitic cast iron with spheroidal graphite. Nauch. trudy Inst. lit. proizv. AN URSR no.10:120-125 '61. (MIRA 15:6)
(Cast iron--Metallography)

S/122/61/000/005/003/013
D221/D304

AUTHORS: Serensen, S.V., Academician AS USSR, Kramarenko, O.
Yu., Candidate of Technical Sciences, and
Kulikovskaya, O.V.

TITLE: Kinematics of fatigue destruction of cast iron
containing spheroidal graphite

PERIODICAL: vestnik mashinostroyeniya, no. 5, 1961, 14 - 19

TEXT: The presence of spheroidal graphite in cast iron imparts a peculiar character to fatigue destruction of the latter, compared to the similar process in steel. Study of this phenomenon was carried out with consideration of technology of its production, structural features and type of load. The tested material was produced in an electric furnace with additions of magnesium and ferrosilicate. Its composition was as follows: 3.14 - 3.34 % C; 2.30 - 2.58 % Si, 0.68 - 0.72 % Mn; 0.010 - 0.019 % S; 0.10 - 0.12 % P, and 0.05 - 0.052 % Mg. The cast iron was subject to annealing at 550-600°C during 4 hours. It contained a small quantity of ferrite on the

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fringe of graphite inclusions. Two structural variants were obtained through heat treatment: Pearlitic after normalization, and ferritic - due to annealing. Investigation of destruction was carried out on plain specimens by testing symmetrical bending and torsion. The surface of the specimen was observed with the use of a microscope. Metallographic study of destruction of individual structural components was also carried out microscopically. Fatigue destruction of cast iron was tested at various levels of stressing. Appearance of damage on the surface always begins with graphite inclusions, independently of the structure. Damage in the metallic base is also at spots where graphite is near the surface. Not all these cracks develop during further experiments. The authors referred to cracks with a maximum length of 0.25 mm as a first stage. The duration of this stage depends upon the level of stressing. The second stage is characterized by growth of one or more figures. Individual fissures converge in the direction of the weakest spots of the metallic matrix, and at the same time they grow at the surface and in depth. The rate of this increase depends upon stress and structure of cast iron. At a certain point there is a sharp change

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Kinematics of fatigue destruction ...

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in the above speed of growth which signifies the start of the third stage, when separate parts of cracks are united and form one or several main fatigue cracks. The working section of specimen is, therefore, reduced, stress is increased, and finally, the ultimate destruction takes place. Metallographic study established that the form of graphite is of great importance. Irregular shape promotes concentration of stresses in the matrix, and earlier creation of cracks, and apparently reduces the number of cycles required for destruction. During deformation of ferritic and pearlitic matrices around graphite inclusions, the latter are not subject to destruction. Destruction in ferrite is characterized by marked plastic deformations and, the appearance of shear lines within the boundary of individual grains. Fatigue crack in ferritic cast iron takes place between graphite inclusions across the grains of ferrite as well as along its boundary. Quantitative analysis of experimental data allows several laws on the development of fatigue destruction of cast iron with spheroidal graphite to be deduced. An assumption was made that the largest crack characterizes the degree of damage. The length of it on surface was designated as l_m . The three stages

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described above are plotted by the authors. Graphs of the increase in fatigue destruction in pearlitic and ferritic cast iron obtained with 10 - 15 specimens are plotted in Fig. 9. It is seen that increase of stress from 1.13 to 1.6 of the endurance limit results in a change of duration of individual stages as well as rise of rates of growth of destruction, v_1 and v_2 , in the II and III stages.

Curves showing destruction of three structural variants of cast iron and of steel 45 are also illustrated. The life of cast iron during these tests is mainly determined by the duration of stage II which increases with lower stresses. The relationship between speeds v_1 and v_2 and the level of stressing as well as the effect of structure on former is given graphically. Characteristics of stage III and the length of maximum crack at the instant of destruction are affected by the structure. Greatest length of crack is found with ferritic cast iron. A characteristic feature of fatigue destruction of cast iron with spheroidal graphite is the large amount of initial fatigue cracks, i (up to 80%, of which one or two exhibit a further expansion (i_m)). The data showed fatigue curves

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from the initial crack N_1 to final destruction N_d to be plotted (Fig. 12). The presence of stress concentrations produces a substantial change in the course of development of fatigue destruction of cast iron with spheroidal graphite.. The author draws the following conclusion: The discussed type of cast iron exhibits an early formation of fatigue damage which is characterized by three stages. Duration of individual stages and length of cracks depend upon level of stress and structure of metallic matrix. For components, where the early appearance of cracks is undesirable, a less plastic cast iron should be used, and having a pearlitic structure. There are 13 figures and 4 tables.

Card 5/8

KRAMARENKO, O.Yu.

Evaluating the scattering from stresses in fatigue testing
(survey). Zav. lab. 28 no. 6: 711-716 '62. (MIRA 15:5)
(Metals--Fatigue)

KRAMARENKO, O.Yu.; KULIKOVSKAYA, O.V.

Effect of phosphorus on the fatigue resistance of pearlitic cast
iron with spheroidal graphite. Nauch. trudy Inst. lit. proizv.
AN URSR 11:95-101 '62. (MIRA 15:9)
(Cast iron--Fatigue)

KRAMARENKO, O.Yu.

Dispersed characteristics of fatigue resistance in nodular
cast iron. Nauch. trudy Inst. lit. proizv. AN URSS 11:
102-113 '62. (MIRA 15:9)
(Cast iron--Fatigue)

GORSHKOV, Andrey Andreyevich; ZATULOVSKIY, Sergey Semenovich, inzh.; RUDENKO, Nikolay Grigor'yevich, inzh.; VOLOSHCHENKO, Mikhail Vasil'yevich, kand. tekhn. nauk; KLIEUS, Vladimir Vasil'yevich, inzh.; LUZAN, Petr Petrovich, kand. tekhn. nauk; KRAMARENKO, Oksana Yur'yevna, kand. tekhn. nauk; KULIKOVSKAYA, Olga Varfolomeyevna, inzh.; FILATOVA, T.A., red.

[Cast iron with spheroidal graphite treated by rare-earth modifiers; problems of theory and practice] Chugun s sharo-vidnym grafitom, obrabotannyyi redkozemel'nyimi modifikatorami; voprosy teorii i praktiki. Kiev, Naukova dumka, 1964. 161 p. (MIRA 17:11.)

1. Akademiya nauk URSS, Kiev. Institut problem lit'ia.
2. Chlen-korrespondent AN Ukr.SSR (for Gorshkov).

KRAMARENKO, P. F.

KRAMARENKO, P. F. - "Controlling the movement of ions and suspended particles in strong electric fields at atmospheric pressure". Moscow, 1955. Moscow State U Ineni M. V. Lomonosov. (Dissertation for degree of Candidate of Physicomathematical Sciences.)

SO: Knizhnaya Letopis' No. 46, 12 November 1951. Moscow

69440

S/139/60/000/01/014/041
E032/E414

24,2400

AUTHOR: Kramarenko, P.F.

TITLE: Control of the Motion of Suspended Particles²¹ in Strong
Electric Fields and at Atmospheric Pressure

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1960, Nr 1, pp 77-79 (USSR)

ABSTRACT: The present paper describes the results of experiments which show that it is possible to obtain reasonable concentrations (focusing and defocusing) of suspended particles under the action of an electric field and at atmospheric pressure. The apparatus shown schematically in Fig 1 was used to control the motion of suspended particles using an electric field. In Fig 1, 1 are disc electrodes. 2 is glass, 3 is a glass cap, 4 is an ebonite plate with a circular aperture, 5 is a metal cylinder and 6 is an insulating support. A suitable potential difference is applied as shown. The glass cap 3 containing carbon dust having a dispersion of 0.1 to 20 μ was placed on the lower electrode. The thickness of the layer was about 1 mm.

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The cap was covered by the ebonite plate 4 and a potential difference of 15 kV was applied across the plates 1. The distance between these plates was 6.6 cm. A study was then made of the focusing properties of the cylinder 5 as a function of its height h and the potential applied to it. The deposits on the upper plate were examined with the aid of a photoelectric microphotometer. The results obtained are shown in Fig 2, in which the potential of the cylinder relative to the cathode is plotted along the vertical axis (kV) and the diameter of the focused spot (cm) along the horizontal axis, with h as a parameter. As can be seen the focusing effect increases with the length of the cylinder. Fig 3 shows a similar plot with h constant (20 mm) and the diameter of the cylinder as a parameter. This graph shows that smaller diameters (Graph III) give better focusing up to a certain definite potential (7.5 kV). Experiments were also

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carried out to show the effect of the form of the cylinder on the focusing property. The results of these experiments are shown in Fig 4. Finally, a study was made of the effect of the dimensions of the anode on the focusing properties. The results are shown in Fig 5. The general conclusion is that in all cases, the focusing and the spread of the particles depend on the height, the diameter and the form of the intermediate electrodes, as well as on their potential and the dimensions of the electrodes of the capacitor. The biggest effect is due to the edges of the focusing cylinders or cones. Experiments were also made with aluminium, iron, marble and glass dust. In all cases it was found that focusing is possible. There are 5 figures and 8 references, 4 of which are Soviet, 2 German and 2 French. 4

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Control of the Motion of Suspended Particles in Strong Electric
Fields and at Atmospheric Pressure

ASSOCIATION: Stavropol'skiy gosudarstvennyy mededitsinskiy institut
(Stavropol' State Medical Institute)

SUBMITTED: February 23, 1959

Card 4/4

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KRAMARENKO, P.F.

Visual observation of the movement of suspended particles along lines of force in inhomogeneous electric fields at atmospheric pressure. Izv.vys.ucheb.zav;fiz. no.2:238-239 '60. (MIRA 13:8)

1. Stavropol'skiy medinstitut.
(Electric fields)

KRAMARENKO. P. F.

Cand Phys-Math Sci - (diss) "Control of ion movement and movement of suspended particles in strong electrical fields at atmospheric pressure." Rostov-na-Don, 1961. 8 pp; (Rostov-na-Don State Univ); 190 copies; price not given; (KL, 6-61 sup, 193)

YELENEV, L.K.; DREL', L.T.; KRAMARENKO, P.I.

Material on botany for distribution. Biol. v shkole no.3:82-84
My-Je '62. (MIRA 15:7)

1. Luganskiy pedagogicheskiy institut.
(Botany—Audio-visual aids)

BONDARENKO, S.S.; KASHANSKIY, B.R.; KAPUSTIN, V.Ya.; KRAMARENKO,
P.T.; LOVI, A.A.; MIKHEYEV, I.V.; POLETAYEV, A.S.;
SELEZNEV, V.I.; SUDAKOV, S.V., polkovnik, red.; VIL'CHINSKIY,
I.K., red.

[Instruction in firing at night from small arms and grenade
launchers] Obuchenie strel'be noch'iu iz strelkovogo oruzhiia
i granatomet. Moskva, Voenizdat, 1964. 214 p.

(MIRA 18:4)